

362
BA
AS

1. A method for producing a low-extractable film comprising the steps of:

- (a) providing an actinic radiation curable aqueous composition comprising (i) a water soluble compound which contains at least one α , β -ethylenically unsaturated, radiation polymerizable group and (ii) water;
- (b) applying said aqueous composition onto a surface; and
- (c) irradiating the surface in a single step with actinic radiation in the presence of the water; thereby forming a cured film wherein less than 50 ppb of uncured residue is extractable from the cured film when immersed and heated in 10 ml of a simulant liquid per square inch of cured film.

Please amend Claim 7 as follows:

Ab

7. The method of claim 6 wherein the diacrylate ester of an alkanolglycidyl ether is 1,4-butanedioldiglycidyl ether or the diacrylate ester is an ethoxylated aromatic epoxide.

Please amend Claim 9 as follows:

A1
9. The method of claim 8 wherein water is present in an amount ranging from about 5 weight % to about 25 weight, % based on the weight of the aqueous composition.

Please amend Claim 16 as follows:

A8
14 16. The method of claim 1 wherein the surface is selected from the group consisting of a polyolefin, a polyethylene terephthalate, a metalized polyethylene terephthalate, polycarbonate, cellulosic material, paper material, cardboard material, metal, glass, polystyrene, polyvinylchloride, polynaphthelene terephthalate, polyacrylate and polyacrylic.

[Please amend Claim 17 as follows:]

15 17. The method of claim 14 wherein the surface is a food packaging material.

Please amend Claim 27 as follows:

A9
27. An improved actinic radiation curable aqueous single fluid composition comprising: a water soluble compound which contains (a) at least one α , β -ethylenically unsaturated, radiation polymerizable group and (b) water; wherein the improvement

g
B3
comprises that when a surface is coated with the composition and exposed once to actinic radiation in the presence of the water, a cured film is formed wherein less than 50 ppb of uncured residue is extractable therefrom when immersed and heated in 10 ml of a simulant liquid per square inch of cured film.

Please amend Claim 33 as follows:

A10
3) ~~33~~³⁰. The composition of claim ~~32~~³⁰ wherein the diacrylate ester of an alkanolglycidyl ether is 1,4-butanedioldiglycidyl ether or the diacrylate ester is an ethoxylated aromatic epoxide.

Please amend Claim 35 as follows:

A11
~~33~~³⁵. The composition of claim ~~27~~²⁵ wherein water is present in an amount ranging from about 5 weight % and about 25 weight %, based on the weight of the aqueous composition.

Please amend Claim 48 as follows:

A12
B4
48. A packaging material comprising a substrate and a cured film adhered to the substrate surface derived by providing an aqueous composition consisting essentially of (a) a water soluble oligomer containing two or more acrylic groups and (b) water;

B2
A12
C12
applying the aqueous composition on the substrate; and curing in a single step by actinic radiation in the presence of the water, such that less than 50 ppb of oligomer residue is extractable from the cured film when immersed and heated in 10 ml of a simulant liquid per square inch of the cured film.

Please amend the **ABSTRACT** as follows:

A13
A method for producing a low-extractable film packaging from an actinic radiation curable aqueous composition containing a water soluble compound having at least one α , β -ethylenically unsaturated, radiation polymerizable group and water as essential components carried out by applying the aqueous composition to a surface which is then irradiated in a single step with actinic radiation in the presence of the water thereby forming a cured film wherein less than 50 ppb of the water soluble compound or its residual components are extractable by a food simulant.

Please add Claim **50** as follows:

A14
50. An improved method of packaging a food or medicinal product with a film meeting governmental requirements for direct contact with said food or medicine, wherein the improvement which comprises utilizing as said film, an actinic radiation cured aqueous

114
amended

composition having a water soluble compound containing at least one α , β -ethylenically unsaturated radiation polymerizable double bond group and water.

REMARKS

Applicants and their attorney, Sidney Persley, appreciate the courtesy and consideration shown by Examiner Jackson at an interview with the Office on June 13, 2001. The remarks and amendments made herein are pursuant to that interview and add no new matter to the specification.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE"

(2) - (8) Rejections Pursuant to 35 U.S.C. § 112 2nd Paragraph

Claims 7-9, 16, and 33-35 have been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. More specifically: